

**WORD COUNT: 1962.  
11111 characters exactly.**

## **THE HUMAN SIDE OF THE MEDIA LAB**

*Nicholas Negroponte, head of MIT's Media Lab, is a dashing, controversial thinker and fund-raiser famous for sardonic remarks. In our phone interview, however, he was extremely gracious.*

*Professor Negroponte began in computer-aided design at MIT, planning an Architecture Machine which would learn what people wanted and build accordingly. His Architecture Machine Group, encouraged by MIT president Jerome Wiesner, became the Media Lab, which now has an endowment of some twenty-five million dollars.*

NN. Hello? There I am.

TN. Hi, Nicholas.

NN. Sorry. Pandemonium.

TN. It's been at least a decade since we talked at length. What have the recent years been like for you?

NN. Well, in the early days, when you and I were kids, in the late sixties and early seventies, I tried very hard to get people interested in the human-computer interface. And as you will remember as well as anybody, that was at a time when that really was considered Sissy computer science. And so I really worked very hard to try and make it the Right Stuff.

After that, in the late seventies, I was driven to try and get people to think of the convergence of media-- the intersection of broadcast, publishing and computers.

My personal interest is to affect the way people think, and change the course of thinking. Obviously I'm saying that in hopes that it's for the best.

T. So what occupies most of your time?

NN. What occupies most of my time is servicing debt. We have seventy-five companies who sponsor this place, and quite a few people who were very generous in the early days. Our initial stockholders in some sense have reaped some benefit, I hope, but they also expect to be remembered and taken care of.

TN. So you don't mean financial debt, you mean essentially obligations--

NN. I mean the obligations you build up when you have a large number of people who invested in you at a time when most of the world thought you were crazy.

TN. What have they gotten?

NN. Each company gets something different. Also you have to remember that in the beginning there were a lot of individuals, individual people who contributed chairs and the like.

TN. Chairs?

NN. By chairs I mean the academic chairs.

TN. Oh, I was thinking of furniture.

NN. Pretty expensive piece of furniture.

#### Media

TN. What do you mean by "Media"? What're Media?

NN. Media is the various forms that bits *take*.

Over time you're going to see not just a Convergence, but literally a Disappearance, of some discrete Media.

### Models and Transcoding

Because eventually-- maybe not in the very near future, but eventually-- we'll be transmitting *models* of things.

These bits arrive, and then in your receiver, whatever that receiver may be, they are then transcoded into one medium or another. Let me give you a very simple example. If you think of modelling the weather-- the weather conditions around the world, or local weather, doesn't make any difference-- one can imagine a rather dynamic model that at any point in time can be transmitted down to a receiver. And then the receiver, depending on you, could transcode that into a little audio weather report that you would hear in your car or on your cassette, or it could be transcoded to a bit of animation you might see on your TV.

TN. Because it's a representation of the weather, rather than merely the words of the weather report.

NN. Yes. There are no words and there are no animations or anything that we would think of as a medium in this model. You could transcode those bits from the form they arrived in, a model, into a variety of media. Bits are bits.

Whatever transcodes it will be doing it not only for you, but presumably knowing you. So let's say it's gonna speak it. It would speak it differently to you than to me than to someone else. It would obviously focus on different areas. If I were a fisherman it would concentrate more on the maritime weather, and the high tide and low tide and the size of the waves, which when I'm sitting in my office in Cambridge, Massachusetts, is of absolutely no consequence.

TN. One doesn't have have a lot of control over the kinds of models that the AI critters are going to have of us. It's as though they're an other-worldly intelligence beyond us-- or is that not the way you think of it?

NN. I'm not sure I'm too worried about that, as long as their performance is satisfactory. That's sort of analogous to people. I'm not sure I worry about the inner algorithms they use, but I really have to entrust to certain people that they will filter things and interact with things. I don't know what algorithm [my

assistant] used to get hold of you to leave a message, but the performance of the system worked fine.

TN. One of the reason that I always disliked AI models was that people would say "Well, it'll be just like interacting with a person," and I didn't WANT to interact with a person, I wanted to interact with a neutral program, not get involved in social complications.

NN. That's absolutely true; and I think that when people say, it'll be just like a person, they're not thinking of the social complications; it's more the transparency that a conversation has, especially with someone you know very well.

#### Successes: Multimedia/Hypermedia

TN. So what have been your principal successes so far, would you think?

NN. It depends on how you measure success.

TN. Well, asking how *you* do, I guess

NN. Look, if somebody were to ask the origins of the word "hypermedia," they would point to you. And I think if people were to, take the word "Multimedia," I think they'd have to point here-- things that we were doing in the middle and late seventies were the beginning of [Multimedia]. It's certainly the biggest impact, in that everybody and their brother seems to be betting the house on it these days.

So if you asked me, you know, for the birthplace of Multimedia, I think we'd have to say it was right here.

TN. How do you distinguish multimedia from hypermedia? I know don't know what people mean--

NN. I don't distinguish them really, because I think Multimedia tends to mean Interactive, and if it's interactive it tends to mean all the things that *you* brought to the table, back in the sixties.

[At first] we did not call it Multimedia, because we were asked not to by our sponsors in Washington. Senator Proxmire had an annual award called the Golden Fleece award-- remember that? I was nominated several times, and I'm sure you were too. Anybody

worth their salt was nominated for it. DOD [Department of Defense] did not want us to us to get it, and the word "multimedia" implied nightclubs in those days.

TN. Oh!

NN. When we submitted a proposal called Multimedia Computing, we were asked to change the name. But we did get the contract.

Stewart Brand's book

TN. How did the Stewart Brand book [*The Media Laboratory*] come about?

NN. I had not known Stewart personally until the first TED conference, in 1984, in Monterey-- this was before the Media Lab existed as a facility, but it existed as a kind of entity that was about to be unleashed. And he liked what he saw--this was in the days when I travelled with a lot of videotapes and disks, and so on and so forth. And he sent me a postcard from Africa, saying that he'd love to spend a semester at the Media Lab.

And he came for five or six months, with his then-new wife Patty, and after about the third or fourth day it seemed that we thought of co-authoring a book together, and then about after the third month I said Stewart, it's much better if you do it on your own, and that's what he did.

He had an office on the fourth floor of the building, and he wrote the book from the perspective of the fourth floor. The topics he treated were almost inversely proportional to the distance from his office.

TN. That's a microcosm of most people's books, I think. Stewart's book certainly has done well. It helped the Lab a lot.

NN. It helped the Lab enormously. There's no question about that.

TN. Of course, it has been said that it was quite a break having him as a personal publicist, it was a very strong kind of a boost.

NN. It was a great boost, obviously very upbeat and hyper. We had no editorial control over it.

Here's one of the great interview questions. What would you like written on your tombstone?

What I'd like to see on my tombstone would be that "he never took a patent out in his life." I think I have a patentable idea every day, and I have never taken a patent out. I find patents and copyrights just horrible.

McLuhan

TN. How do you feel about McLuhan?

NN. How do I feel about McLuhan? People are very important figures in their time, and they make the times, as he did, but I don't think he's right, any more. We've gone beyond "The Medium is the Message." I think the Message is the Message.

Art

TN. What place is there for Artistry at the Media Lab?

NN. What place is there for artistry at the Media Lab? Well, 50% of the population of the Media Lab, which is approximately 300 people, are people from outside computer science, and so of that 50%, I would say a third probably consider themselves card-carrying artists.

TN. Imagine if Leonardo da Vinci or Orson Welles came knocking, would there be a place for them at the Media Lab?

NN. Oh, yes. We'd give them tenure immediately. You can count on that.

TN. How do you feel about criticism?

When people criticize you out of jealousy I sort of ignore that, but when people criticize you because, for instance, they don't believe that media will converge-- I was thrown out of the office of at least a dozen senior executives in the late seventies, early eighties-- in some sense that's almost heartwarming, cause it's kind of nice to be considered sort of crazy, when you know you're right.

TN. Oh yeah. I'm familiar with that.

NN. And in some sense if I have any regret, it's that the Media Lab swung from being considered "charlatans"-- the word was used very often-- to the Establishment. Frankly, I much prefer being a charlatan.

TN. BEING a charlatan, or being called one?

NN. Being called one.

TN. Now that's a difficult word. Have you heard it much?

NN. Not recently. Unfortunately, words like "premiere" and "world class" and all of these adjectives that you're supposed to be pleased about, but frankly my job at the Media Lab these days is to make sure that we move on to things that are still considered either impossible, or crazy to be tackling, or hard.

The past decade has been one in which people-- including the Media Lab-- have basically provided Sound and Light-- "Son et Lumiere"-- for computers. The richness of interface, at least the outbound side of it, has really gotten much better, but in terms of understanding the bits, and understanding the signal, we haven't done very much.

And maybe AI has done us a disservice, but we'll have to find another word. *Understanding the bits*, understanding *content*, is certainly the agenda for the next decade.

## HO d13 -----

### *Continuing insertions from d10 ctp.*

, not just representations of them.

From a single model I think I can generate many representations. If you sent me a model of the weather, I could probably generate an audio program that tells you about it, I could probably generate a pretty good little map that shows you a picture of it, and maybe even some animation of what's going to happen. That's what I meant by Representation.

That brings up another interesting issue.

## HO d12 -----

And as you will remember as well as anybody  
And of course by the early eighties it became that.

And that's sort of taken hold.

Now, you could claim that the model itself is a medium of a kind--  
fine, I don't want to get into the semantics of that--

TN. Okay.

NN. But

And again, with an extraordinary agent at the time, I said, "Get this message back to him any how you can." I'm not sure how they did it.

But the answer was just basically, "Yes, come, January first,"  
and he did.

while he was at MIT-- he collected the data for that book.

NN. Well, I told him he'd have to come back some day and write a book from the third floor.



## HO d11 -----

NN. Well, again, you know, I don't think of Media with a capital M. The world of "bits being bits" changes what previously was kind of, "the Medium is the Message."

TN. Now, I do want to hound you a little on what Media means to you, because I think the readers would love to hear. Could you elucidate a little on the territory as you see it?

NN. I guess what I should probably say is what I *don't* think Media is-- are, is the right way of saying it; and that

TN. Discrete media? Meaning what?

TN. I often use the terms Structure and Views, but the distinction is clear.

NN. Structure is indeed better.

T So in this case are you saying that in this case media would be different manifestations of a common model?

NN. Absolutely. In any one domain.

TN. Okay. In the usual way it's stated,

interestingly enough. Do you remember Proxmire's awards?  
at least when I use that, which I do very frequently,

TN. Yup.

and I'm sure you were too.

which has always intrigued me.

If I go down to this hotel here, and have to speak to one of these people behind the counter, I have to send hundreds of thousands of bits for minute content. They really don't know me, and I can't abbreviate anything, and so on. With somebody you know very well, you only need to send a few bits back and forth, and it really works very very well.

TN. Well, the word, anyway.

The most successful, in the sense that they've integrated their artistic interests with their research, have been the people in music, for obvious reasons, I guess.

TN. Tell me the obvious reasons.

NN. Well, there's always been a kinship between music and mathematics, and that has spilled over very naturally into a new kinship between computer science and music. In fact, if there's an audience of computer scientists, or computer science graduate students, try it someday, and ask how many people either play an

instrument, or have a what I'll call a serious musical inclination or interest-- you'll see 75 to 80% of the hands shoot up. Go to a meeting of-- I don't know, biologists, any other discipline-- and you'll find a less dense response.

I don't know how much criticism you hear from your eyrie, from perhaps those who are jealous or whatever--

NN. Well, you get various kinds of criticism, as, again, you've probably witnessed. The kind of criticism that I listen to very carefully is the kind I get from Jerry Wiesner, who shares an office with me, and comes in to work every day, and is a very wise person. The kind of criticism I find the least interesting are journalistic jabs.

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ENDLINE

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